egg does not swell enormously after oviposition, it is improbable that the fall in osmotic pressure is due to the absorption of water. The simplest explanation is that the egg is, at this time, permeable to the internal osmotic substances. That this permeability is only a temporary condition is indicated by the fact that the osmotic pressure of the resulting embryo rises until it reaches that of frog's serum.

In conclusion, I wish to thank the Carnegie Institution, and especially Dr. Chas. B. Davenport, the director of the laboratory.

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THE BACTERIOLOGY OF "TÄTTÉ MELK"

This milk is a favorite food article in Norway and Sweden and is prepared by inoculating sweet cow's milk with leaves of *Pinguicula vulgaris* or with a small amount of the finished product. Sometimes pieces of linen are dipped into the fermented milk, allowed to dry, and used for inoculation. This method makes it feasible to send the material by mail. The milk is thick and slightly stringy and has a slight cheesy taste and odor.

I obtained three samples of the milk and one of the impregnated linen from a reliable source for the purpose of determining the active agents in it. A microscopic examination of the samples showed streptococci in large numbers, mostly in diplococcus form, but frequently in chains of ten to sixteen members. Two species of yeasts were also in abundance, one being an oval yeast, the other a large organism with square ends, often forming long filaments. Besides these organisms there were present some bacilli resembling *B. coli* in shape and size, which proved to be gram-negative. There were also a few large bacilli resembling that group of bacilli, which is found in milk almost invariably and forms larger amounts of acid than ordinary lactic acid bacteria. Microscopic examination of the impregnated linen did not show yeast cells.

Plates were prepared from the four samples in dextrose-litmus-agar and in beerwort agar; litmus milk was inoculated with the original material. The milk, when intended for consumption, is inoculated at body temperature, and therefore all plates and cultures were incubated at 37° C.

There was no difficulty in isolating the different organisms from the plates. The streptococcus could not be distinguished microscopically from *S. lacticus,* but its action on sterile milk differed in that it coagulated but slowly; after coagulation the coagulum was stringy, similar to the coagulum formed by *B. bulgaricus,* but in a smaller degree. The oval yeast gave the microscopic picture of *Saccharomyces cerevisiae.* It ferments lactose and saccharose with violent gas production, levulose slowly, and maltose not at all. Cultures of this yeast in liquid beerwort impart a somewhat stringy consistency to the medium. The other yeast proved to be *Oïdium lactis,* which is always present in milk and in this milk is probably responsible for a slight cheesy taste and odor.

Cultures of the samples were also made in broth with the addition of 2 per cent. dextrose and 0.5 per cent. acetic acid. The presence of the acid restrains most bacteria, so that those forming a large amount of acid can be detected by this method. Dextrose also favors the growth of these bacilli. After twenty-four hours' incubation they were found in abundance in the cultures. These organisms, however, do not multiply readily in milk in competition with other bacteria and I do not believe that they have any bearing upon the production of "Tätté Melk." In fact sterilized milk, inoculated with streptococci, isolated from the samples, and with the two species of yeasts, resembled the original product closely after twenty-four hours. Whether the yeast has anything to do with the stringiness of the milk is doubtful, but it adds to the palatability of the milk. It does not produce nearly as much gas in the milk as it does in pure culture.

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